

In The Claims:

1. (Currently Amended) A vehicle crash safety system for an automotive vehicle comprising:

a pre-crash sensing system generating a pre-crash signal;

a vehicle dynamics detector generating a vehicle dynamics signal;

a pre-crash countermeasure system;

a pre-crash controller controlling the pre-crash countermeasure system in response to the said pre-crash signal and said vehicle dynamics signal, said pre-crash controller generating a pre-crash controller signal and a threat assessment signal;

an occupant position and classification sensor generating an occupant position and classification signal;

an early crash sensing system generating an early crash signal;

an early crash countermeasure system having a plurality of early crash countermeasures; and

a coordinated safety system controller coupled to the pre-crash controller, the early crash sensing system, the occupant position and classification sensor and the early crash countermeasure system, said coordinated safety system controller generating a threat confirmation signal in response to the threat assessment signal and the early crash signal, said coordinated safety system controller selecting and deselecting an appropriate early crash countermeasure from the plurality of early crash countermeasures controls the early crash countermeasure in response to the early crash signal the occupant position and classification signal, said threat confirmation signal and said pre-crash controller signal.

2. (Original) A system as recited in claim 1 wherein the pre-crash sensing system comprises a vision system.

3. (Original) A system as recited in claim 2 wherein the vision system comprises a stereo pair of cameras.

4. (Original) A system as recited in claim 1 wherein the pre-crash sensing system comprises a receiver.

5. (Original) A system as recited in claim 1 wherein the pre-crash sensing system comprises a radar or lidar.

6. (Original) A system as recited in claim 1 wherein the pre-crash sensing system comprises a transponder.

7. (Original) A system as recited in claim 1 wherein the vehicle dynamics detector comprises a speed sensor.

8. (Original) A system as recited in claim 1 wherein the vehicle dynamics detector comprises a yaw sensor.

9. (Original) A system as recited in claim 1 wherein the vehicle dynamics detector comprises a steering wheel angle sensor.

10. (Original) A system as recited in claim 1 wherein said pre-crash controller activates said pre-crash countermeasure in response to target object distance, relative velocity and target object size signals.

11. (Currently Amended) A system as recited in claim 1 wherein the pre-crash countermeasure system comprises at least one of an active safety system, a motorized seatbelt pretensioner, a bumper airbag system, a suspension height adjustment system, a structural stiffness modifier system, [[or]] and a collision warning system.

12. (Currently Amended) A system as recited in claim 1 wherein said early crash countermeasure system comprises at least one of a driver airbag system, a passenger airbag system, a seatbelt system, a deployable steering system, a deployable lower extremity protection system, a deployable knee bolster system, [[or]] and an anti-submarining system.

13. (Original) A system as recited in claim 1 wherein said early crash sensing system comprises at least one crash sensor.

14. (Original) A system as set forth in claim 1 wherein said early crash sensor system comprises a crash sensor, a seat position and seat inclination sensor, a seat weight sensor, a seat belt usage sensor, an occupant position and classification sensor and an airbag control switch.

15. (Currently Amended) A method for operating a vehicle crash safety system for an automotive vehicle comprising:

generating a pre-crash signal from a pre-crash sensing system;

generating a vehicle dynamics signal from a vehicle dynamics detector;

generating a global position signal for the vehicle;

controlling a pre-crash countermeasure system in response to the pre-crash signal and the vehicle dynamics signal;

generating a threat assessment signal in response to the pre-crash signal, the vehicle dynamics signal and the GPS signal;

generating an early crash signal from an early crash sensing input system; [[and]]

generating an occupant position and classification signal from an occupant position and classification sensor;

generating a threat confirmation signal in response to the threat assessment signal and the early crash signal; and

controlling selecting an appropriate early crash countermeasure from a plurality of early crash countermeasures system in response to the early crash signal, the occupant position and classification signals, the threat confirmation signal, and the pre-crash signal.

16. (Original) A method as recited in claim 15 further comprising coordinating a deployment of the pre-crash countermeasure system and the early crash countermeasure system.

17. (Currently Amended) A method as recited in claim 15 wherein said early crash countermeasure system comprises at least one of a driver airbag system, a passenger airbag system, a seatbelt system, a deployable steering system, a deployable lower extremity protection system, a deployable knee bolster system, [[or]] and an anti-submarining system.

18. (Original) A method as recited in claim 15 wherein said early crash sensing system comprises at least one crash sensor.

19. (Original) A method as recited in claim 15 wherein the early crash sensor system comprises a crash sensor, a seat position and seat inclination sensor, a seat weight sensor, a seat belt usage sensor, an occupant position and classification sensor, and an airbag control switch.

20. (Currently Amended) A vehicle crash safety system for an automotive vehicle comprising:

a pre-crash sensing system generating a pre-crash signal;

a pre-crash countermeasure system;

a pre-crash controller controlling the pre-crash countermeasure system in response to the said pre-crash signal, said pre-crash controller generating a pre-crash controller signal and a threat assessment signal;

an occupant position and classification sensor generating an occupant position and classification signal;

an early crash sensing system generating an early crash signal;

an early crash countermeasure system having a plurality of early crash countermeasures; and

a coordinated safety system controller coupled to the pre-crash controller, the early crash sensing system, the occupant position and classification sensor and the early crash countermeasure system, said coordinated safety system controller generating a threat confirmation signal in response to the threat assessment signal and the early crash signal, said coordinated safety system controller selecting and deselecting an appropriate early crash countermeasure from the plurality of early crash countermeasures controls the early crash countermeasure in response to the early crash signal the occupant position and classification signal, said threat confirmation signal and said pre-crash controller signal.